

What Is Claimed Is:

1 1. A method of operating a communication system
 2 comprising the steps of:
 3 assigning a first code to a first beam of a mobile user;
 4 assigning a first code to a second beam of a second user;
 5 moving the first beam with the mobile user;
 6 continually determining whether an interference occurs between
 7 the first beam and the second beam; and,
 8 when an interference occurs between the first beam and the
 9 second beam, reassigning a second code to the first beam.

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1 2. A communications system comprising:
 2 a first mobile user device;
 3 a second user device; and,
 4 a high altitude communications device in communication with a
 5 first mobile user device in the second user device, the high altitude
 6 communications device assigned a first beam having a first code to the first
 7 mobile user and assigns a second beam having the first code to the second user,
 8 said device continually determining whether an interference occurs between the
 9 first beam and the second beam and, when an interference occurs, reassigning a
 10 second code to the first beam.

1 3. A system as recited in claim 2 wherein said high altitude
 2 communications device comprises a communications platform.

1 4. A system as recited in claim 2 wherein said
 2 communications platform is located in a stratospheric location.

1 5. A system as recited in claim 2 wherein said high altitude
 2 communications device comprises a satellite.

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1 6. A system as recited in claim 2 wherein said satellite is
2 selected from the group consisting of a medium earth orbit satellite, a low earth
3 orbit satellite, and a geostationary satellite.

1 7. A system as recited in claim 2 further comprising a
2 device operations center.

1 8. A system as recited in claim 7 further comprising a
2 gateway station coupled to the high altitude communication device.

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1 9. A system as recited in claim 8 wherein said gateway
2 station couples said users to terrestrial networks through the high altitude
3 communications device.

1 10. A method of operating a communications system
2 comprising the steps of:

3 introducing a first user into the system;
4 establishing a plurality of code bins;
5 when an empty code bin exists, assigning the first user to an
6 empty code bin;

7 when no empty code bins exists, determining whether the user
8 may be assigned to a first one of the plurality of code bins by performing an
9 interference check;

10 when the interference check is not passed, determining a second
11 one of the plurality of code bins;

12 performing an interference check with the second of the plurality
13 of code bins; and,

14 when an interference of the second code bin is not found,
15 assigning the user the code associated with the second bin.

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